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THE GOVERNMENT'S PLANS FOR SOCIAL INSURANCE

The Government's plans for social insurance have been published in two White Papers, one (Cmd. 6550) containing proposals for social insurance generally as well as for family allowances, and the other (Cmd. 6551) containing proposals for replacing the existing system of Workmen's Compensation by a special scheme of Industrial Injury Insurance. The general principles of the main scheme, the types of benefit included, and the division of the cost between insured persons, employers and the Exchequer, follow very closely the lines of Sir William Beveridge's *Report on Social Insurance and Allied Services* (Cmd. 6404). The economic implications of the Beveridge plan, and the effects of alternative methods of financing the additional expenditure involved, have been fully discussed in a Supplement to this BULLETIN.[1] The proposals made by the Government involve many similar issues which, therefore, will need only brief consideration here, so that attention will mainly be focussed on the differences between the two sets of proposals.

The most important difference is the Government's rejection of the underlying principle of the Beveridge *Report* that rates of benefit should be based on estimates of the minimum requirements necessary for subsistence. The following reasons are given for this decision :—(1) ' the definite linking of benefit to subsistence rates might involve the fre-

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[1] BULLETIN Vol. 5, February 20th, 1943, Supplement No. 4.

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quent variation of benefit rates in accordance with the cost of living'; (2) 'social insurance must necessarily deal in averages of need and requirement. It cannot adapt itself to the almost infinite variety of individual conditions. Circumstances vary, not only between places but between people, and the conception of relating individual payments precisely to individual needs is not really capable of realisation in an insurance scheme, particularly where that scheme covers all classes of the community. It is an essential feature of an insurance scheme that equal contributions should provide equal benefits within a class or group' ; (3) 'benefits must be paid for, and a high level of benefit must mean a high level of contribution. The Government therefore conclude that the right objective is a rate of benefit which provides a reasonable insurance against want and at the same time takes account of the maximum contribution which the great body of contributors can properly be asked to bear.'[1]

Let us consider these arguments in turn. First, it is worth noting that the rates of contribution are based on estimates made by the Government Actuary and that these estimates depend on a large number of assumptions, many of which are unlikely to be fulfilled in practice. Assumptions had to be made with regard to : fertility, marriage and death rates ; the classification of the population ; expected rates of sickness and unemployment and the proportions entitled to benefit ; the rate of interest ; the proportions of persons retiring at different ages; and other matters. In general, little or no allowance was made for changes, compared with pre-war conditions, in any of these factors, although some changes, partly in consequence of the new measures proposed, are practically bound to occur. As the Government Actuary remarks, 'The working of the scheme in all its aspects will clearly have to be tested by periodical actuarial investigations. These will have regard primarily to long-term trends as affecting the financial equilibrium of the various parts of the scheme, the continued stability of the rates of contribution prescribed, and the growth in the charge falling upon the Exchequer. In the light of these reviews the Government will be in a position to take early action, by modifications in the rates of contribution, or otherwise, in order to maintain the financial balance of the scheme.'[2] It appears to be anticipated, therefore, that in any case, some revision in the rates of contribution, or benefit, or both, may occasionally be necessary.

Second, if the rates of benefit were linked to the cost of living, it does not, of course, follow that the rates of contribution and benefit would be subject to continual variation, which would undoubtedly cause a great deal of inconvenience. For, not only could minor fluctuations in the cost of living be ignored ; but—more important than this—there are reasons for believing that some of the economic controls which have been introduced during the war, including the stabilisation of the cost of living by means of subsidies, may have to be kept in operation, at least during the transition period immediately after the war, and later also, in conjunction with the Government's policy of maintaining a high

[1] Social Insurance, Part I, Cmd. 6550, paras. 12 and 13.

[2] Cmd. 6550. Appendix I, par. 37.

level of employment. If benefits were based on a subsistence standard, this would itself, indeed, constitute a reason in favour of the stabilisation of the prices of necessaries.

Third, the fact that it is impossible to take account of the individual circumstances of every family is no reason for not setting the rates of benefit at a level which is at least sufficient to meet average subsistence requirements. The principle is postulated that ' social insurance must necessarily deal in averages of need and requirement,' but the proposals made by the Government, being insufficient, at the present level of prices to cover average requirements (see below), do not, in fact, embody this principle. The problem of rent, the most important factor responsible for differences in need, is admittedly difficult, but is not impossible, of solution.[1]

Fourth, if it is thought that contributors cannot be asked to pay more than the rates suggested, there are two possible remedies. Either a larger share of the cost of the scheme could be placed on the Exchequer ; or the rates of contribution could be made to vary, depending on the person's income, rates of benefit remaining constant. It can be urged that one of these two measures should in any case be adopted, since for low wage earners even the rates of contribution suggested would probably constitute a serious burden. Essential requirements which are not covered by the insurance scheme would come under national assistance, the cost of which is entirely met by the Exchequer, so that the principle that equal contributions should provide equal benefits cannot in practice be strictly applied and cannot, therefore, be regarded as essential.

The rates of benefit suggested in the Beveridge *Report* were based on estimates of the cost, at 1938 prices, of the minimum requirements necessary for subsistence. For adults of working age, it was estimated that, on the average, a man and wife would require 32s. a week, a single man 19s. and a single woman 18s. As a basis of discussion, in framing his proposals, Sir William Beveridge assumed that the cost of living after the war would settle at about 25 per cent above the level of 1938. The resulting rates of benefit were 40s. a week for a man and wife of working age and 24s. for a single person (no differentiation being made between single men and women). These are the rates suggested by the Government, for unemployment and sickness benefit, although the cost of living is at present, and may be expected to remain for some time after the war, considerably more than 25 per cent above the 1938 level.[2]

It may be roughly estimated that, at the present level of prices, the cost of subsistence requirements would be at least 35—40 per cent higher than in 1938, or approximately 10 per cent higher than was assumed in the Beveridge proposals. Consequently, in order that they should be strictly comparable with the proposals of the Government, the rates of benefit and contribution, and the estimates of total income and expenditure, under the Beveridge plan should all be increased by about 10 per cent.

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[1] *Cf.* the suggestion made by Professor A. L. Bowley (*Journal of the Institute of Bankers*, April 1943, p. 58) of graduating the employer's contribution, according to certain broad districts, and adjusting the rate of benefit for the major differences in rent.

[2] The shortcomings of the Ministry of Labour Cost of Living Index, which is at present (1st September, 1944) 29½ per cent above the average level in 1938, have been discussed in previous BULLETINS.

For the purposes of the Government's scheme, the population is classified, as in the Beveridge Report, into the following six classes: Class I—employees; Class II—others gainfully occupied; Class III—housewives; Class IV—others of working age not gainfully occupied; Class V—children below working age; Class VI—persons retired and above working age. The weekly contributions proposed by the Government, including the contributions towards the special scheme, for Class I, of Industrial Injury Insurance, are as follows:—

Weekly Contributions for Social Insurance.

	Class I			Class II	Class IV
	Insured Person	Employer	Total		
	s. d.	s. d.	s. d.	s. d.	s. d.
Men—					
Aged 18 and over	3 10	3 1	6 11	4 2	3 4
Aged 16—18	2 5	2 1	4 6	2 9	2 2
Women—					
Aged 18 and over	3 0	2 5	5 5	3 6	2 8
Aged 16—18	2 0	1 7	3 7	2 5	1 10

The main benefits proposed under the general scheme are as follows:—

Weekly Rates of Benefit.

	Sickness Benefit	Invalidity Benefit	Unemployment Benefit	Retirement Pension
	s. d.	s. d.	s. d.	s. d.
Single man or woman Married Man with gainfully occupied wife	24 0	20 0	24 0	20 0
Married Man with wife not gainfully occupied	40 0	35 0	40 0	35 0
Married woman gainfully occupied	16 0	16 0	20 0	20 0
Dependant's allowance where payable	16 0	15 0	16 0	- -

For widows, there is to be a benefit of 36s. a week (and 5s. for the first child) for the first 13 weeks of widowhood, followed by a guardian's benefit, if there is a dependent child, of 24s. a week (and 5s. for the first child); a widow's pension of 20s. a week will also be granted to widows who are over 50 when the husband dies, or when the children cease to be dependent.

The rates of sickness and unemployment benefit are the same, in money terms, as those suggested in the *Report*; but, in real terms, as mentioned above, they are substantially less—by something like 10 per cent. Under the Beveridge plan, these benefits would be unlimited in duration, but sickness benefit would be subject to certain behaviour conditions, and unemployment benefit, after a limited period (suggested as six months), would be conditional on attendance at a work or training centre.

Under the Government scheme, sickness benefit, if contributions have been paid for 3 years, will be granted for the first three years of any continuous period[1] of sickness and will be followed by invalidity benefit, at somewhat lower rates (see above) ; if contributions have been paid for less than 3 years, but for at least 6 months, sickness benefit will be granted for one year. Unemployment benefit is payable for a continuous period[1] of not more than 30 weeks[2] ; any further payments, ' subject to proof of need and examination of means ' (Cmd. 6550, para. 161) would come under national assistance. Whereas, in the Beveridge Plan, unemployment assistance, subject to a means test, would play a negligible part, in the Government's scheme, as may be seen from the comparative figures of expenditure, shown below, it is still an important factor.

The reasons given for limiting the duration of sickness and unemployment benefit are : that sickness benefit of unlimited duration is felt to be 'psychologically unwise and would tend to encourage those subject to recurrent periods of sickness to lapse into chronic invalidity '; and that, while ' training schemes are of the utmost importance in preventing unemployment and in securing fluidity of labour,' nevertheless ' a requirement to undergo training after a certain period of unemployment would not constitute an effective safeguard against possible abuse of benefit ' (Cmd. 6550, para. 67). These fears, that the right to receive benefit for an unlimited period might be abused, appear to be exaggerated. As Sir William Beveridge recognised, ' most men who have once gained the habit of work would rather work—in ways to which they are used—than be idle, and all men would rather be well than ill.'[3] In view of existing safeguards, including the obligation to accept suitable work, when offered, at not less than the former wage, the suggested condition, which involves the retention of the means test for the unemployed, should not be necessary. On the other hand, the rejection of the proposal that, after a certain period, continued unemployment benefit should be made conditional on attendance at a work or training centre, which might then have become an undesirable source of cheap labour, is an improvement on the Beveridge Plan. For persons undergoing a course of approved training, the Government propose special allowances, at a higher rate than unemployment benefit.

Children's allowances, under the Government's proposals, are granted to all children after the first, at the rate of 5s. a week per child. The cost of these allowances is to be charged to general taxation. When the head of the family is in receipt of benefit, an allowance of 5s. a week is also payable for the first child, but the cost of this allowance is to be charged to the Social Insurance Fund and will be shared between insured persons, employers and the Exchequer. In addition, provisions in kind to children, in the form of school meals and milk services, will be extended; it is estimated that the total cost of supplying meals and milk to children at school, when the system is fully in operation, will be of the order of £60 million a year, which is equivalent to roughly 2s. 6d. per week per child. In effect, therefore, the suggested allowances amount, on the average, to roughly 7s. 6d. per week (apart from provision which, it is stated, 'may be made for children under school age, for which no estimate of cost can at present be given').

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[1] Periods separated by less than three months being treated as continuous.

[2] ' With additional days where the contributor has a good record of employment in recent years ' (Cmd. 6550, para. 66).

[3] *Report on Social Insurance and Allied Services*, Cmd. 6404, para. 130.

In the Beveridge *Report*, allowances for children, based on estimated subsistence requirements (excluding rent), were proposed at an average rate of 9s. per week at the assumed level of prices and, allowing for provisions in kind equivalent to 1s. per week, an average cash allowance of 8s. was suggested. The equivalent value of these allowances in cash and kind, at the present level of prices, would be about 10s. a week. As in the Government's proposals, cash allowances were to be paid to all children except the first child, and, when the head of the family was in receipt of benefit, to the first child as well; the cost in both cases, however, was to be borne by general taxation.

The subsistence requirements for retired persons are less than those for persons of working age. But it was suggested in the *Report* that retirement pensions, for persons with 20 years' contributions, should be at the same rates (40s. joint, 24s. single) as sickness and unemployment benefit, partly because old persons were thought to deserve something more than bare subsistence, and partly to avoid the possibility of stepping down from benefit to pension, when retirement age is reached. The rates initially suggested were much less (25s. joint, 14s. single) and would gradually have risen during the transition period of 20 years. The Government's proposals, in regard to pensions, are more generous than the initial rates but substantially less than the final rates suggested in the Beveridge Plan.

Other benefits in the general social insurance scheme follow closely the proposals of the Beveridge *Report*, being on the whole, if anything, slightly more generous, as may be seen from the figures of expenditure, shown below. The proposal of a marriage grant, however, has been dropped, no doubt for the reason stated in the opening paragraph, where the Government's aim is described as 'the prevention of individual poverty resulting from those hazards of personal fortune over which individuals have little or no control' (Cmd. 6550, para. 1).

The proposals contained in the special scheme for industrial injury insurance are also more generous, on the whole, than those of the *Report*, but the idea of relating benefits to earnings has been rejected, mainly on the grounds of the practical difficulties involved, so that the benefits will be higher for some and lower for others, and the proposal of a special levy on the more hazardous industries has not been included.

A general comparison of the total expenditure and income, in 1945 and 1965, under the Government's scheme, the Beveridge Plan, and existing schemes, is shown in the following Table. It is emphasised that, in fact, the new scheme will not be fully in operation in 1945, and this year is chosen only for purposes of comparison with previous estimates. It should be borne in mind that, since the estimates of expenditure under the Beveridge plan relate to an assumed price level of 25 per cent above the 1938 level, they need to be increased by approximately 10 per cent before they can be considered as directly comparable with the corresponding figures under the Government's scheme. In real terms, total expenditure under the Government's scheme, in 1945, is about 12½% less than under the Beveridge Plan. Allowing for the additional provisions in kind for school children,[1] on the scale eventually envisaged, the over-all reduction in expenditure is, in real terms, about 7½% in 1945 and about 9½% in 1965.

From the figures showing the amounts of income from different sources, it appears that the difference between the contribution towards the cost of the Government's scheme and the amount payable under existing schemes is greatest in the case of insured persons. In most cases, however, as we noted before,[2] the additional contribution could probably be compensated by a reduction in the voluntary payments made at present, for benefits which are to be included in the social insurance scheme. For persons with low incomes, however, the proposed contribution might represent a serious burden.

The additional contribution required from employers in 1945 can be estimated, on the same basis as before,[3] to involve an increase in prime costs of less than 1¼%. The resulting increase in prices would not be greater than the increase in prime costs and the effect on exports, therefore, would be negligible.

The additional contribution from the Exchequer (or local rates) in 1945 amounts to £78 million.[4] The total yield of income tax for the financial year 1944/5, with a standard rate of 10s. in the pound, is estimated at £1,300 million. On the present basis, therefore, the extra charge on the Exchequer could be carried by an increase in the standard rate of income tax by 7d. in the pound, assuming a proportionate increase in the reduced rate. This estimate makes no allowance, of course, for any future changes in the amount and distribution of incomes, or in the various allowances and the general scope of income tax, or for the effect of the Excess Profits Tax in reducing the yield of income tax.[5]

An interesting comparison can also be made between the total expenditure, less the contributions of insured persons, under the Government's proposals and under the schemes which were in force in 1938. We consider, in other words, only the expenditure which is not financed by direct personal contributions to the social insurance fund, for the employers' contributions are financed by increases in price and the share of the Exchequer (and local rates) by direct or indirect taxation. The difference between the estimated total expenditure on all benefits, including children's cash allowances, and the contributions of insured persons, under the Government's proposals, amounts to £496 million in 1945, or 6.1 per cent of the national income in 1943 (as estimated in the White Paper on War Finance and National Income, Cmd. 6520); if provisions in kind for school children, estimated to cost about £60 million when the scheme is fully in operation, were included, the proportion would be 6.8 per cent.

Expenditure on benefits, less insured persons' contributions, in the financial year 1938/9, resulting from the schemes then in force, may be

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[1] The additional provisions amount to about 1s. 6d. a week per child of which the total cost would be about £36 million.

[2] Bulletin Vol. 5, Supplement No. 4, p. 12.

[3] Ibid, p. 13.

[4] Excluding the cost of enlarged provisions in kind for children.

[5] If income tax due for repayment after the war is excluded, and a rough allowance is made for the effect of E.P.T., the required increase in the standard rate is still 7d. in the pound.

Estimated Expenditure in 1945 *and* 1965

(£ Million)

	Existing System	Beveridge Plan		Government Scheme	
	1945	1945	1965	1945	1965
Retirement Pensions	177	126	300	169	272
Widows' and Guardians' Benefits		31	22	34	40
Assistance Pensions		39	25	37	39
Unemployment Benefit	64	121	116	87	85
Unemployment Assistance	23	-	-	22	21
Sickness and Invalidity	27	62	77	55	68
Maternity Grant & Benefits	3	7	6	9	8
Children's cash Allowances	4	92	84	57	54
Other National Assistance	15	5	5	6	6
Death Grant	-	4	12	4	11
Marriage Grant	-	1	3	-	-
Industrial Injury	13	15	15	20	20
Costs of Administration of above services	21	24	23	25	25
Health Services	80	170	170	148	170
Total	427	697	858	673	819

Estimated Income in 1945 *and* 1965.

(£ Million)

	Existing System	Beveridge Plan		Government Scheme	
	1945	1945	1965	1945	1965
Insured Persons	69	194	192	177	173
Employers	83	137	132	125	121
Interest on Existing Funds	15	15	15	15	15
Exchequer (or local rates)	278	351	519	356	510
Total	445	697	858	673	819

Notes:—

1. The above figures include the special scheme of Industrial Injury Insurance, which forms Part II of the Government's proposals.
2. It is assumed that, at the beginning of the scheme, the National Health Service will not be fully in operation and this accounts for the lower figures of expenditure in 1945, under the Government's proposals, than in 1965.
3. The figures shown for the cost of children's allowances do not include the cost of allowances for the first child, which is included, in each case, with the respective benefit; the estimates given in the Beveridge *Report* were accordingly modified. The cost of provisions in kind for children is not included here.
4. The total income, under existing schemes, is £18 million greater than the corresponding expenditure, owing mainly to the interest on substantial balances which have accumulated under the unemployment scheme, during the war, and to the fact that the contribution was based on a higher rate of unemployment than is assumed for the post-war period.
5. In all three cases, expenditure on unemployment benefit is based on the assumption that 8½ per cent of all persons are unemployed. Expenditure under the existing system excludes the effects of the increased rates of benefit granted in October 1944.
6. The contributions of insured persons and employers, under the Government's scheme, have been approximately estimated, as they are not given separately in the White Paper.

estimated at about £285 million,[1] or 6.2 per cent of the estimated national income in 1938. The rate of unemployment was about 12½ per cent in 1938/9, or not very different from the rate assumed in the Government's scheme (10 per cent among persons at present insured). Thus, apart from expenditure which is directly financed by insured persons' contributions, the cost of the Government's proposals, in proportion to the national income, is not much higher than the corresponding expenditure resulting from schemes which were in operation before the war.

It is to be noted that the cost of unemployment benefit, including the cost of the first child's allowance, is reckoned on the assumption that 8½% of insured persons (equivalent to 10% of persons at present insured) will, on the average, be out of work, the total cost being shared equally between insured persons, employers and the Exchequer. This assumption is defended on the grounds that ' in making the calculations for a scheme of such magnitude it was thought a matter of financial prudence to assume a figure of 8½%.' (Cmd. 6550, par. 177). On the other hand, it is stated in the Foreword of the White Paper on *Employment Policy* (Cmd. 6527) that ' The Government accept as one of their primary aims and responsibilities the maintenance of a high and stable level of employment after the war.' This responsibility would be more fully recognised if, for the purpose of fixing the insurance contribution, the rate of unemployment were determined by the estimated average rate of frictional and seasonal unemployment ; if unemployment above this level were financed by borrowing, this would also have beneficial effects on the volume of employment.[2]

J. L. NICHOLSON.

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[1] Expenditure on the main benefits in 1938—9 amounted to £279 million ; that on workmen's compensation, including costs of administration, amounted to about £13 million; expenditure on health services met from public funds amounted to about £50 million, making a total of £342 million ; deducting £55 million for employees' contributions, the difference may be put at £287 million. (Figures from data contained in Cmd. 6404).

[2] Cf. BULLETIN Vol 5, Supplement No. 4, p. 4.

SIZE AND PRODUCTIVITY OF COAL MINES IN GREAT BRITAIN

The 'Statistical Digest for 1938' issued earlier in the year by the Ministry of Fuel and Power presents some material on the size and output distribution of coal mines in Great Britain.

The declining trend in the number of coal mines, including mines not producing coal during the year such as pumping pits, new sinkings, etc., continued uninterrupted during the war. From 1938 to 1943 the number of mines fell by about 10 per cent, from 1,976 to 1,738. This contraction affected mainly the smaller pits ; the number of medium and big mines increased. The following table illustrates the changes in the size composition where size is measured by numbers of workers employed.

Tablo I

*Size Distribution of Coal Mines in Great Britain**

Numbers employed		Under 100	100-499	500-999	Over 1,000	Total
No. of mines	1913	1,492	1,170	422	183	3,267
	1935	1,098	527	282	168	2,075
	1942	807	397	300	234	1,738

* The 1942 figures are not strictly comparable, but indidate broadly the changes in total numbers and between size groups.

It is usually assumed that the growth in the average size of mines and the shift towards larger units leads to greater efficiency. In a general sense this seems to hold good for manufacturing industries and it is probably also true for extracting industries. Data to test this assumption or to show to what degree larger units are more productive than smaller ones are, however, scanty and usually not detailed enough to draw definite conclusions. The material presented below is certainly inadequate in many respects : it treats coal as a homogeneous commodity, it does not make allowances for differences between mining districts and for special wartime conditions, etc. It brings out, however, some of the complexities in the relation between size and output.

Table II

Output per Wage-earner and Size of Pits in G.B. (1942)

Size Groups : Pits employing:	A under 100	B 100-499	C 500-999	D 1000-1999	E 2000-3000+	A—E
1. Percentage No. of Pits in Size Groups	46.5	22.8	17.3	11.2	2.2	100
2. Percentage of total output	2.2	15.6	29.2	38.8	14.2	100
3. Per cent. of Wage-earners employed	2.7	16.2	29.9	37.4	13.8	100
4. Output per Wage earner (tons p.a.)	245	276	281	297	296	287

Table II shows the percentage distribution of wage earners and of output between pits of various size. It can easily be seen that the output percentage of each size group is about proportionate to the corresponding percentage share of workers. In the size group up to 500 workers the percentage of output falls slightly short of the labour percentage, while in the size groups above a thousand workers the output percentage exceeds the employment percentage by a small margin.

The picture becomes, however, clearer if we calculate the output per wage-earner per year in the various size groups. As the wage-earners are not the average employed throughout the year but relate to those on colliery books at December 1942, this procedure might appear doubtful. Actually the total number employed on the average in 1943, as given in the 'Digest,' is practically identical with the end of December figure, and if we can assume that there were no major shifts between the size groups during the year and that labour disputes, absenteeism, etc. affected the various groups more or less proportionately, the per head figures can be taken as significant.

The rise in labour productivity as we move up from Group A to D is very marked, but flattens out between group E (mines employing 1000—2,000 workers) and D (mines employing 2,000 and more workers). It is also clear that mines of 1,000 workers and more show a productivity above the average and mines below 1,000 workers a productivity below the average.

The productivity-size pattern shows less regularity within the main size groups given above and gives only averages. A second Table in the 'Digest' enables us, however, to obtain an idea of the dispersion of productivity around the central value within the various size groups.

Table III gives the cross classification of the number of pits according to size and output per man shift during a week in May 1943. Very small pits have been excluded from the survey. In a certain number of cases, also, colliery undertakings amalgamated their pit figures, with the result that size and productivity are not strictly defined on a pit basis. Let us neglect for a moment the distortion introduced by the omission of 250 odd smallish pits and by the amalgamation of pit figures, and take the size-productivity tabulation referring to a May week in 1943, as if it were representative for the average of the year 1943

TABLE III

Distribution of pits according to production and size obtained from the results of a special tabulation of the Ministry's figures for a particular week in May, 1943.

No. of pits employing wage-earners	Output of coal per man-shift worked							
	Over 40 cwts.	35 to 39 cwts.	30 to 34 cwts.	25 to 29 cwts.	20 to 24 cwts.	15 to 19 cwts.	under 15 cwts.	Grand total
Under 20	14	5	14	32	34	53	123	275
20 to 49	4	1	13	28	32	49	59	186
50 to 99	3	3	3	11	9	28	32	89
100 to 499	1	4	13	45	108	128	57	356
500 over	4	7	21	94	184	187	39	536
Total number of Pits	26	20	64	210	367	445	310	1,442

The average output of saleable coal per man-shift worked for the country as a whole is about 20½ cwt. Slightly more than one-fifth of all recording pits show an output of under 15 cwts. and about an equal proportion an output of 25 cwts. and more.

The relation between size of pits (grouped according to number of wage earners employed) and labour productivity (measured by output of coal per man-shift worked) is summarized in Table IV.

TABLE IV

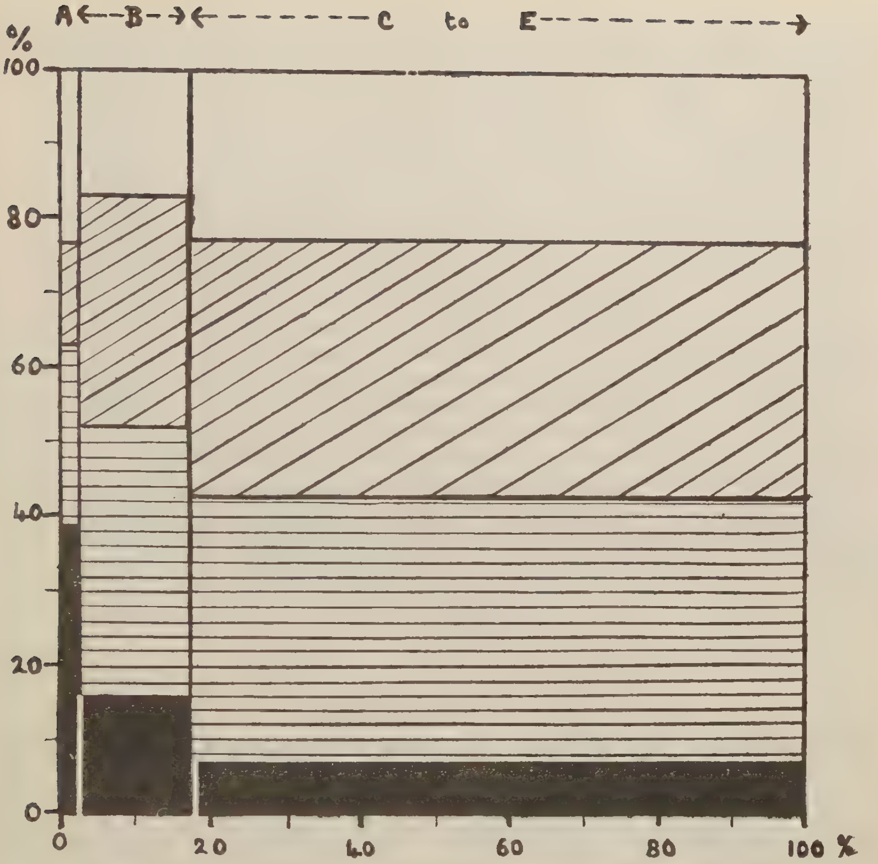
Percentage Distribution of Pits According to Productivity and Size

Output of Coal per Man-shift Worked

Size Group (Wage-earners)	under 15 cwt.	15—19 cwt.	20—24 cwt.	over 25 cwt.	
A. Under 100	39.0	23.6	13.6	23.8	100
B. 100—499	16.0	36.0	30.5	17.5	100
C—E. 500 & over	7.3	35.0	34.2	23.5	100
All Pits	21.5	31.0	25.5	22.0	100

The percentage number of pits with a labour productivity of less than 15 cwts. falls as the size of pits increases and the proportion of pits showing a productivity of 20—24 cwts., i.e. average productivity or more, rises as we move from size Group A to C. That is the pattern one would expect. For the productivity class of 15—19 cwts. and of over 25 cwts. the distribution becomes irregular. The proportion of pits in the highest productivity class is about the same for big and small sized pits and lower for the medium size group. If it is remembered, however, that a considerable number of very small pits with probably less than average productivity were excluded from this special survey, it seems likely that the percentage of small pits in the highest productivity class is in fact considerably smaller. If this correction were to bring the percentage of A pits in the highest productivity class down to something like 10 or 15 per cent, we would obtain the expected result, that a higher proportion of big and medium mines than of small ones are in this group.

If we take a productivity of 20 cwts. as about the national average, it is evident that about 58% of big pits have a productivity above this figure but only 48% of the medium and 37% of the small pits. Size of pits and labour productivity may thus be said to be positively correlated in the sense that the proportion of pits in the higher productivity groups increases as we rise from size group A to C. In the Diagram the size-productivity distribution is combined with the percentage distribution of total coal output between pits of different size (as given in Table II). Reading along the horizontal axis we find that big pits (C to E), employing more than 500 wage earners each and representing about 30 per cent of the number of pits, account for more than 80 per cent of total output. Medium pits (B), representing about 23 per cent of the total number of pits, account for about 15 per cent of the output, while the small pits (A), employing less than 100 workers and represent-



1. Size Groups

    A = Pits employing : under 100 wage-earners.
    B = ,, ,, 100 - 499 ,,
    C = ,, ,, over 500 ,,

2. Productivity Groups.

    ■ = Output per man-shift worked : under 15 cwts.
    ▤ = ,, ,, ,, ,, 15 to 19 cwts.
    ▨ = ,, ,, ,, ,, 20 to 24 cwts,
    □ = ,, ,, ,, ,, over 25 cwts.

3. Vertical Axis = Percentage Distribution of number of Pits according to Productivity Groups.

    Horizontal Axis = Percentage tonnage of coal produced by different Size Groups.

ing about half the number of pits, account for only 2 per cent of total output. Reading along the vertical axis we find the percentage distribution of pits according to productivity in each of the three size groups, A, B, and C to E.

It is obvious from the diagram that, apart from the uncertainties introduced by the amalgamation of pit figures and the omission of very small pits, the question of the relation between size and productivity cannot be adequately answered because the really important size groups of pits employing between 500 and over 3,000 wage earners, which account for four-fifths of the total output, are lumped together in one figure. If productivity data were given for the range from 500 upwards in class intervals of 500 wage earners the relation between size and productivity could perhaps be established with greater confidence.

Even then a further factor needs analysis : productivity in coal mining varies not only with size groups but also with districts and the dispersion shown in Table III may be partly due to differences in district productivity. The 'Statistical Digest' gives no cross-classification of size groups with productivity and districts. It gives, however, the average productivity for each of the 25 mining districts of Great Britain and the size distribution of mines for each district. By classifying the mining districts according to productivity and by noting the relative share of each district of mines of various size we obtain Table V.

TABLE V.

Productivity and Size Distribution by Districts.

Great Britain 1942

Districts	Output per man-year (tons)	Av. Outpt per man-year (tons)	Percentage of					
			Wage-earners	Output	All mines	Small mines 0—49	Medium mines 50—499	Big mines 500+
1—4*	350—440	387	13.8	18.8	8.5	5.3	5.3	15.6
5—9†	300—350	317	21.8	24.0	13.5	7.5	16.8	18.3
10—17‡	250—300	270	37.7	35.4	47.3	56.3	44.6	37.9
18—25§	200—250	235	26.7	21.8	30.7	30.9	33.3	28.2
All Areas (1—25)		287	100	100	100	100	100	100

*1, Leicester (output per man-year: 439 tons), 2, Derbyshire, South (405), 3, Nottinghamshire (394), 4, Derbyshire, North (366).

†5, Ayr and Dumfries (346), 6, Fife and Clackmannan (345), 7, Lothians (329), 8, Warwickshire (324), 9, Yorkshire, South (305).

‡10, Staffordshire, South and Worcester (292), 11, Staffordshire, North (285), 12, Yorkshire, West (283), 13, Lanarkshire (281), 14, Shropshire (280), 15, Northumberland (272), 16, Durham (256), 17, Cannock Chase (256).

§18, North Wales (249), 19, Kent (248), 20, Forest of Dean (242), 21, Lancashire and Cheshire (239), 22, South Wales and Monmouth (234), 23, Somerset (221), 24, Cumberland (200), 25, Bristol (199).

Variations in district productivity (see footnote to Table V) are almost as great as variations in size productivity (see Table III) and, broadly speaking, the more recently developed mining districts tend to have a higher productivity than the older ones. It will also be noted that high district productivity and preponderance of large scale mining are positively correlated. The percentage share in the number of mines of the two most productive district groups is 8.5 and 13.5 per cent respectively, but their share in mines employing over 500 workers (namely 15.6 and 18.3 per cent respectively) is very much greater and their share in the number of small mines (5.3 and 7.5 per cent) appreciably smaller than their share in the total number of mines. For the two lower district groups the relation tends to be reversed. But it by no means holds true for each individual district : a table of the distribution of mines according to size for each district would show very considerable variations within the productivity groups given in Table V.

It follows that in order to test the relation of size to productivity it would be necessary to have Table III sub-divided by districts, and possibly by kinds of coal produced. The data as they stand shed little light on the question of amalgamation and concentration as a means of improving the efficiency of coal mining in this country. The smaller pits up to 100 workers are quantitatively unimportant ; to close down 800 small pits completely would hardly affect total output,[1] even if no labour transfers were made (it would even raise output if displaced workers were distributed proportionately over bigger mines), and might simplify considerably the structure of the industry. The real problem of rationalisation lies not with the small pits but with the medium and big pits which supply over 95 per cent of the country's coal and half of which have an output per manshift of less than 20 cwts.

F. A. BURCHARDT.

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[1] Taking normal peace-time conditions. At present every ounce of coal is of course needed for the domestic market and for the liberated areas.

THE STATISTICAL BACKGROUND OF CLOTHES RATIONING, 1941—44 (concluded)

CHANGES IN MONEY EXPENDITURE UPON CLOTHING SINCE 1941-42.

A rough estimate of the changes in money expenditure per coupon for the whole nation can be obtained from the White Paper on National Expenditure by dividing total money outlay by the average coupon outlay. If we assume the civilian population to have been 44, 43·5 and 43 million respectively in the three years concerned the corresponding index obtained is 2s. 11d., 3s. 11d. and 4s. 7d. per coupon. A distinct rise in money outlay per coupon is shown but comparisons between the years must be made with caution for more than one reason. For example, money outlay refers to the calendar year and includes money spent on unrationed clothing while coupon outlay refers to the twelve months periods (June—May). Again the value of this index has been found to vary from month to month, being lowest in the months of heaviest purchasing immediately after a new batch of coupons becomes valid, and thereafter rising gradually as purchases slacken off, until the next coupon release date. The explanation is probably in part that clothing purchases by the lower social groups are less evenly spread over the year than those of groups AB and C, as the following Table shows for 1943/44.

TABLE IX.

Range of Monthly Coupon Outlay by Social Groups in 1943/44

	AB	C	D	E
Men	1.9—4.8	1.9—4.9	1.5—6.9	1.6—8.8
Women	2.8—6.1	2.6—5.8	1.9—6.7	1.7—7.9

In the second and third years considered here coupon outlay was less than in the first year of rationing and the greatest decline in purchases had occurred in the lower groups. From this alone some rise is to be expected in money outlay per coupon for the nation as a whole, for the proportion due to Groups AB and C had risen.

Yet the rise in money outlay per coupon for the nation is larger than can be accounted for by this means alone: it is also due to a general shift towards higher prices and, presumably, better qualities, as is shown by the following data relating to 1943/44. From the Panel data a limited number of price averages have been calculated for garments of chief importance to each sex. The discontinuities in the price-range since the introduction of Utility clothing make average prices less representative in the later year, especially in the case of the AB Group since the sample is often small. For example, the average price of AB men's suits in 1943/44 is based upon a sample of 38 purchases in which there were two modal prices, one of about 12 guineas and one in the Utility range at 90 — 100 shillings.

Using the average prices calculated for 1943/44 we obtain the following values for money expenditure per coupon upon certain items in 1943/44 (Table X).

TABLE X. *Money Expenditure Per Coupon* 1943/44 : *by Social Groups*

Group	*MEN* AB	C	D	E	*WOMEN* AB	C	D	E
Boots and Shoes	4/3	3/9	3/2	3/1	5/8	4/8	3/10	3/6
Do. at 1941/42 coupon rates	*6/7*	*5/9*	*4/10*	*4/9*	*9/6*	*7/10*	*6/5*	*5/9*
Socks (Stockings)	1/8	1/5	1/4	1/3	1/9	1/8	1/7	1/7
Shirts (Dresses)	3/4	2/9	2/3	1/9	8/9	6/7	5/9	5/3
Overcoats	10/3	6/6	4/10	3/11	9/3	7/6	6/2	5/11
Suits (Costumes)	7/1	4/7	4/4	4/3	*	—	—	—
Average on these items :								
1941/42	4/4	3/1	2/8	2/6	5/4†	4/5†	3/7†	3/2†
1943/44	4/10	3/6	2/11	2/9	5/4	4/7	4/-	3/9

* Not available. † Excluding women's costumes.

Comparing this with Table VII we see that men's average money expenditure per coupon on each of the five items listed has risen since 1941/42. Women spend less per coupon upon stockings[1] but much more upon dresses and overcoats. The money expenditure per coupon of both sexes upon shoes is much higher than in 1941/42 if allowance is made for the rise in the coupon price of footwear (see Table XII).

Comparisons between the groups in the same year or between any one group at different times would not be affected by fluctuations in the rate of coupon spending. From Table XII it seems that Group E expenditure per coupon has risen relatively to the higher income groups to an appreciable extent only in the case of women (AB=100, Group E in 1941/42=59, in 1943/44=70) whereas in the case of men it has risen to roughly the same extent in every group.

The shifts in actual purchases have already been noted and the effect of these two factors, rising prices and numbers bought, is reflected in the distribution of money outlay even for this restricted sample of purchases.

TABLE XI.

Money Outlay upon Certain Garments by Social Groups, 1941/42 *and* 1943/44

		MEN AB	C	D	E	*WOMEN* AB	C	D	E
Boots and Shoes	1	24/6	31/4	35/3	40/2	43/6	43/11	37/9	34/5
	2	18/4	23/4	23/0	29/1	29/2	29/2	27/4	30/6
Socks	1	6/9	8/5	10/10	13/5	23/1	25/-	25/-	23/3
(Stockings)	2	3/11	4/11	5/8	7/-	12/-	13/2	11/5	10/5
Suits	1	60/5	36/5	36/2	33/3	15/-	12/6	6/10	5/7
(Costumes)	2	30/8	27/5	22/-	26/5	-*	-	-	-
Shirts	1	15/6	17/8	19/1	20/8	38/2	26/8	26/-	20/-
(Dresses)	2	15/1	14/11	13/6	11/8	29/8	26/8	20/8	21/2
Overcoats	1	14/2	12/1	12/8	12/11	44/-	47/-	35/11	33/11
	2.	11/10	5/5	5/5	3/11	30/8	36/7	30/6	28/-
Total † upon these items	**1.**	**121/3**	**105/11**	**114/-**	**120/6**	**148/9**	**142/7**	**124/9**	**111/7**
	2.	**79/11**	**76/3**	**69/8**	**78/3**	**101/7**	**106/-**	**90/1**	**90/1**

* Not available. **1.**=1941/42, **2.**=1943/44 † Excluding women's costumes.

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[1] There have been small changes in coupon-price of certain types of stockings but it is not possible to assess their influence since the accompanying shifts of demand within the stockings group are not known.

In the case of men in Group AB, for example, the proportions spent on shoes, shirts and overcoats has risen and upon suits fallen. In group E the proportion of money outlay upon shoes has risen as also upon suits, but those upon shirts and, especially, overcoats have fallen. Similar differences between the groups characterise money outlay upon women's clothing.

Between the first and third years of rationing two tendencies are apparent : a general shift to higher priced articles ; and a relative increase in prices paid by the lower social groups as compared with the others, especially in the case of women. These changes have been associated with shifts in money outlay and also with changes in stocks to which we shall now turn.

IV. CONSUMERS' STOCKS OF CLOTHING

The information regarding consumers' stocks of clothing is the result of three wardrobe enquiries relating[1] to April and November 1942 and to April 1944 respectively. It is based upon samples smaller in number than the Consumer Panel,[2] but drawn from it, care having been taken to ensure representative composition[3] both with regard to the original Panel and to each other, the latter especially as between the second and third 'Wardrobe Checks.' In April 1944 approximately half the wardrobes were checked by personal inspection of the interviewers ; the rest were the results of direct questions asked in personal visits. There appeared to be a greater reluctance to impart this information on the part of AB consumers than of any other groups, but a fairly representative sample was finally secured.

The broad changes in the size of wardrobes can be assessed from Table IX below. This gives the average coupon-value (at 1941/42 coupon prices) of wardrobes in each year, analysed by the various groups. The inter-quartile range of wardrobes is also given by social groups for the second and third Checks.

These figures show no marked changes in stocks in any of the groups for which the analysis has been made, but a rise in coupon values (except in Group E) is noticeable as between the two wardrobe investigations of 1942, and, in view of the level to which real consumption had fallen already, this is rather surprising. Is is partly to be explained by the greater desire in all groups to 'make do' with clothing already possessed and so the numerical maintenance of stocks probably conceals a deterioration in quality, i.e. a fall in the amount of ' wear ' left in each garment.

At the level of purchases in the first twenty-one months of rationing, all groups of consumers, except E, were able at least to maintain the numerical value of stocks by reducing their rate of discard *pari passu* with their rate of purchases. Even though their average coupon expenditure was by far the highest for the social groups, this was apparently not possible in the case of Group E, or, if we take the April

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[1] Field work took about 3 months altogether, e.g. in 1944 it began in March and ended in May.

[2] Samples of Wardrobe-Checks numbered roughly 5,000 and 6,000 Panel members in 1942. In 1944 the sample covered 10,000 members or 3,224 households.

[3] The April 1944 sample was planned to parallel that in November 1942.

Table XII.

Coupon Value of Wardrobes (at rates current in April 1942).

by Social Groups.

Date	All Groups	AB	C	D	E	17—50	Over 50
MEN							
April 1942 :—							
Average	230	318	258	217	194	229	233
Nov. 1942 :—							
Average	237	355	276	228	187	237	237
Interquartile Range		260-460	210-340	170-820	140-220		
April 1944 :—							
Average	223	330	265	214	180	224	221
Interquartile Range		230—400	190—320	160—270	140—210		
WOMEN							
April 1942 :—							
Average	229	303	265	216	183	234	205
Nov. 1942 :—							
Average	241	362	289	231	183	246	225
Interquartile Range		240-450	210-360	170-280	130-220		
April 1944 :—							
Average	219	320	269	211	170	221	211
Interquartile Range		220—390	190—320	150—260	120—210		

The corresponding coupon values analysed by *occupational* groups in April 1944 were : for men in Groups I, II, and III 251, 219 and 209 respectively. For women stocks in Group I (housewives and office workers) were valued at 214 and 247 and in Groups II and III, 207 and 192 respectively.

1942 figures at face value, only just possible for E group women but not for the men. The explanation is partly given by Table IX itself : for smaller stocks mean more frequent use for each item and correspondingly greater wear and tear. Also, much of E group clothing before rationing was acquired at second hand or else was of a very cheap quality and so had less ' wear ' in it from the start.

The Third Wardrobe Check shows, on the other hand, a decline in the coupon-value of stocks held by all the groups, partly to be explained by the cut in the rate of coupon release after March 1943. Up till that date the basic rate of coupon release had been 5 per month, though releases were made in batches at irregular intervals. (Average coupon outlay was 10% higher (see Table III)in the first year because of the somewhat generous distribution of supplementary coupons.) In the course of the second twelve months period reviewed here not only was there a more careful control of the issue of the various supplements but the basic rate of coupon release was itself reduced to 4 per month as from March 1943. Since this date there has been no further cut in the ration except that associated with the rise in coupon-prices of footwear after September 1943.

At this reduced rate of purchases, wardrobe stocks have fallen in every social group between November 1942 and April 1944. The fall in absolute numbers has been greatest in the higher groups but the average coupon value of their wardrobes is still well above that of the others. The fall in numbers of garments owned is associated with a deterioration due to wear and tear so that the decline in real value is greater still. In view of the reduced coupon outlay after March 1943 it is rather surprising that Group E stocks are not at a smaller figure for their coupon expenditure has fallen by the greatest amount (by about 30 coupons as against about 20 coupons in the case of Group AB). This suggests that the rate of discard in Group E has fallen.

If we add the difference between stocks to the corresponding coupon outlay we get some idea of the discard rate measured in coupon values (see Table XIII).

TABLE XIII.

Rate of Discard in Coupon Values

MEN	AB	C	D	E
Between 1st and 2nd Check*	+7	—17	—27	—46
Between 2nd and 3rd Check	—75	—66	—71	—67
WOMEN				
Between 1st and 2nd Check	+22	—14	—25	—40
Between 2nd and 3rd Check	—107	—86	—84	—77

*There were six months between Checks 1 and 2 and eighteen months between Checks 2 and 3.

These two sets of figures are subject to some inaccuracy in that the wardrobe values are at constant coupon prices but the purchases at current coupon prices. This error is small, however, and in any case will affect all the groups to much the same extent. It can be seen that Group E discards have fallen markedly in relation to those of the other groups, and to the interval of time that has elapsed. It would be of interest to discover whether this is due to having to ‘ make do ’ with clothing which even Group E would otherwise have replaced, or whether it has been due to the improvement in the quality of the goods they purchase so that items now last longer. The data given show that the shift to high priced articles has been greatest in the lower groups. Panel evidence has shown that sources of second-hand clothing supplies have dried up owing, no doubt, to a reduced discard rate under rationing in the higher groups ; while on the other hand the Utility scheme has been associated with the gradual rise in quality of the very cheapest clothing. E group consumers, therefore, have little option but to purchase new clothing of a better quality than that purchased new in the days before Utility, and it is tempting to think that this may partly account for the unexpectedly high level of their stocks in 1944.

Nevertheless, if we take the figures for April 1942 at face value, it seems that the differences between the groups in the value of stocks held have grown. In April 1942 the coupon value of a wardrobe in Group AB was 65% higher than that of E in the case of men and 66% in that of women. By April 1944 the corresponding proportions were 83% and 88% respectively.

There has been little tendency for stocks of each basic garment to alter relatively to each other, although there have been considerable shifts in purchases, as we can see from Table XIV.

The absolute changes in the *stocks* of each garment between the three checks may not have sufficient significance in isolation but they do permit interesting comparisons as between the different social groups and

TABLE XIV. The Average Number of each Garment *owned* and *bought* by the various social groups together and separately.

MEN	*Social Groups*	All Groups		AB	C	D	E	AB	C	D	E
	Period	Owned	Bought	Owned				Bought			
Garment :—											
Boots and Shoes ...	1	2.7	1.5	3.4	2.9	2.7	2.5	0.84	1.25	1.61	1.84
	2	2.8	1.1	3.8	3.1	2.7	2.5	0.59	0.84	1.15	1.48
	3	2.8	0.9	3.5	3.0	2.6	2.5	0.51	0.75	0.86	1.17
Socks	1	4.3	3.7	6.7	5.0	3.9	3.4	1.89	2.72	3.74	4.89
	2	4.3	2.7	7.2	5.2	4.0	3.1	1.52	2.15	2.88	3.43
	3	3.8	2.0	6.2	4.7	3.7	3.0	1.02	1.56	1.99	2.67
Suits	1	2.1	0.34	3.0	2.3	2.0	1.7	0.31	0.30	0.34	0.37
	2	2.1	0.20	3.3	2.5	2.0	1.6	0.24	0.21	0.17	0.25
	3	2.0	0.19	3.1	2.3	1.9	1.6	0.16	0.19	0.17	0.23
Shirts	1	4.4	1.9	5.6	5.0	4.2	3.8	1.37	1.62	1.96	2.10
	2	4.4	1.4	5.9	4.9	4.2	3.6	1.04	1.25	1.48	1.58
	3	4.0	1.2	5.6	4.7	3.9	3.4	0.90	1.07	1.22	1.22
Overcoats	1	1.3	0.16	1.6	1.4	1.3	1.2	0.13	0.13	0.16	0.19
	2	1.3	0.08	1.7	1.3	1.3	1.2	0.08	0.08	0.08	0.08
	3	1.2	0.06	1.7	1.4	1.2	1.1	0.07	0.05	0.06	0.05
Raincoats and Macs ...	1	0.9	0.14	1.1	1.0	0.9	0.7	0.12	0.18	0.16	0.13
	2	0.9	0.10	1.2	1.1	0.9	0.8	0.12	0.11	0.09	0.08
	3	0.9	0.09	1.1	1.1	0.9	0.7	0.12	0.09	0.09	0.06
Trousers	1	1.1	0.50	1.2	1.2	1.0	1.1	0.33	0.42	0.53	0.58
	2	1.2	0.35	1.6	1.3	1.1	1.1	0.29	0.27	0.37	0.40
	3	1.2	0.27	1.5	1.4	1.1	1.1	0.19	0.28	0.28	0.29
Vests	1	2.8	0.95	3.7	3.0	2.6	2.4	0.67	0.79	0.95	1.11
	2	2.8	0.64	3.9	3.3	2.7	2.3	0.62	0.63	0.69	0.52
	3	2.6	0.52	3.7	3.1	2.5	2.2	0.48	0.49	0.51	0.54
Pants	1	2.4	0.92	3.5	2.7	2.3	2.0	0.70	0.90	0.96	0.91
	2	2.6	0.69	3.8	3.1	2.5	1.9	0.64	0.71	0.75	0.57
	3	2.4	0.57	3.5	3.0	2.3	1.9	0.41	0.59	0.59	0.59
Pullovers and Cardigans ...	1	1.8	0.16	2.2	2.1	1.7	1.5	0.08	0.11	0.20	0.20
	2	1.8	0.11	2.3	2.0	1.8	1.5	0.09	0.09	0.11	0.14
	3	1.6	0.14	2.1	1.9	1.6	1.4	0.08	0.07	0.06	0.09
Jackets	1	0.9	0.13	1.0	0.9	0.8	0.9	0.13	0.13	0.13	0.11
	2	0.9	0.09	1.0	1.0	0.9	0.9	0.13	0.09	0.10	0.07
	3	0.9	0.08	1.0	1.1	0.9	0.9	0.10	0.09	0.08	0.04
Nightwear	1	1.5	0.18	2.9	2.0	1.3	0.8	0.37	0.28	0.15	0.10
	2	1.5	0.14	3.1	2.1	1.4	0.7	0.28	0.22	0.10	0.07
	3	1.4	0.10	3.0	2.2	1.3	0.7	0.22	0.15	0.10	0.04

[contd. overleaf]

TABLE XIV. The Average Number of each Garment *owned* and *bought* by the various social groups together and separately.

WOMEN	*Social Groups*	All Groups		AB	C	D	E	AB	C	D	E
	Period	Owned	Bought	Owned				Bought			
Garment:—											
Shoes and Bootees ...	1	3.1	1.8	4.5	3.5	2.8	2.3	1.51	1.70	1.79	1.91
	2	3.2	1.3	5.2	3.8	2.9	2.4	0.98	1.07	1.33	1.57
	3	2.9	1.1	4.6	3.6	2.7	2.3	0.84	1.00	1.10	1.36
Stockings	1	3.3	6.4	4.9	3.7	3.0	2.5	5.13	5.89	6.82	6.97
	2	3.2	4.7	5.7	4.0	2.9	2.3	4.13	4.32	4.81	5.12
	3	2.7	3.8	4.7	3.4	2.6	1.9	3.18	3.68	3.82	3.86
Costumes	1	0.8	0.10	1.4	1.1	0.7	0.6	0.12	0.10	0.08	0.07
	2	0.8	0.11	1.6	1.0	0.7	0.5	0.15	0.14	0.11	0.09
	3	0.8	0.13	1.7	1.1	0.7	0.5	0.20	0.13	0.12	0.09
Dresses	1	4.0	0.73	5.3	4.8	3.8	3.1	0.62	0.72	0.77	0.76
	2	4.1	0.64	6.2	5.0	3.9	2.9	0.54	0.62	0.66	0.70
	3	3.7	0.49	5.1	4.6	3.6	2.8	0.40	0.51	0.49	0.55
Overcoats	1	2.3	0.41	2.8	2.5	2.3	2.0	0.31	0.40	0.40	0.42
	2	2.5	0.37	3.3	2.9	2.5	2.0	0.26	0.33	0.40	0.41
	3	2.2	0.27	3.8	2.5	2.2	1.8	0.19	0.28	0.31	0.30
Raincoats and Macs ...	1	0.7	0.11	0.8	0.7	0.6	0.5	0.09	0.13	0.11	0.12
	2	0.7	0.06	0.8	0.8	0.6	0.5	0.09	0.09	0.05	0.05
	3	0.6	0.05	0.8	0.7	0.5	0.4	0.07	0.06	0.05	0.03
Skirts	1	1.0	0.14	1.1	1.2	1.0	0.9	0.19	0.17	0.14	0'15
	2	1.0	0.10	1.3	1.2	1.0	0.9	0.10	0.12	0.10	0.11
	3	1.0	0.11	1.3	1.2	0.9	0.8	0.09	0.11	0.09	0.11
Vests	1	3.1	1.0	4.0	3.3	3.0	2.7	0.66	0.83	1.11	1.23
	2	3.1	0.74	4.3	3.5	3.1	2.6	0.59	0.62	0,90	0.75
	3	2.8	0.63	3.7	3.2	2.7	2.4	0.39	0.57	0.68	0.64
Knickers	1	3.6	1.3	4.9	4.0	3.4	3.0	0.96	1.25	1.38	1.46
	2	3.6	1.0	5.7	4.2	3.4	2.8	0.73	0.80	1.09	1.11
	3	3.2	0.8	4.5	3.9	3.2	2.6	0.51	0.74	0.87	0.91
Blouses, Jumpers & Cardigans	1	4.1	0.54	5.5	4.8	3.8	3.3	0.55	0.49	0.52	0.54
	2	4.2	0.41	6.3	4.9	3.9	3.2	0.50	0.44	0.38	0.43
	3	3.7	0.37	5.8	4.6	3.5	2.8	0.44	0.37	0.37	0.36
Petticoats	1	2.6	0.72	3.4	3.1	2.6	2.3	0.40	0.60	0.80	0.82
	2	2.6	0.32	3.4	3.1	2.5	2.2	0.15	0.24	0.35	0.42
	3	2.3	0.23	2.9	2.6	2.3	1.9	0.18	0.22	0.26	0.30
Nightwear	1	3.0	0.34	4.1	3.4	2.8	2.4	0.29	0.34	0.30	0.39
	2	3.0	0.19	4.6	3.7	2.8	2.3	0.18	0.19	0.19	0.19
	3	2.7	0.15	4.2	3.4	2.6	2.0	0.17	0.18	0.15	0.13

The periods 1, 2 and 3 refer to the three Wardrobe Checks in the case of garments *owned*, and to the three twelve-monthly periods (June—May) under review in the case of garments *bought*. Hence the discard rate for each separate item cannot be calculated from these figures their relative purchases and stocks of each item. For example, the decline in the level of stocks shown by the 1944 check is characteristic of almost every garment, the chief exception being men's trousers and jackets and women's costumes. But whereas, at best, stocks of certain garments have remained constant in Groups D and E (both sexes), in the two uppermost groups the general decline conceals actual increases in some items (e.g. nightwear, jackets and trousers in the case of Group C men, and costumes in that of Group AB and E women).

The fall in garments *bought* has been greatest in overcoats and jackets for Group E men and in socks and overcoats for Group AB. In the case of women,[5] purchases of raincoats and nightwear suffer most heavily in Group E and of skirts in Group AB. But for both sexes the decline in all purchases relative to those in the first rationing period are much larger from Group E than Group AB. This has been noted already from the changes in coupon expenditure (p. 226 above). It is partly due to the initially lower rate of Group AB purchases made possible by their higher stocks of all clothing. The discard rate for each item of clothing cannot be calculated as in Table XIII, since the data do not give the purchases corresponding to the changes in stocks owing to the difference in the interval of time (see footnote Table XIV).

Total Money Outlay on Clothing by Social Groups.

The Panel data on prices paid by men and women in 1941/42 give a weighted average of 3/2d. per coupon (excluding children of 13 years and younger). This compares well with the value obtained from the White Paper. If we can assume that in each social group the value per coupon spent upon garments other than those listed in Table VI is not appreciably different from the averages obtained, total money outlay upon rationed clothing can be estimated for the different social groups. With this assumption as a first approximation we obtain the following values (Table XV) by multiplying total coupon outlay of each group by the average money expenditure per coupon (i.e. corresponding values from Tables VI and VIII).

Table XV.

Estimated Annual Expenditure on Rationed Clothing by Social Groups 1941—42

Group :—	AB	C	D	E	AB	C	D	E
	(In pounds)				(As Index Nos. : Group E=100)			
Men	**10.9**	**9.1**	**9.1**	**9.0**	122	102	102	100
Women	**13.7**	**13.9**	**11.6**	**10.3**	134	135	113	100

For pre-war expenditure on clothing we have the evidence of family budgets (See Table XVI.)

The method of classification is different in the two Tables, but for a rough comparison we can say that the Ministry of Labour figure represents classes D and E before the war ; while incomes from £250 to £500 correspond to Group C and those of £500 and over to Group AB. We see that the pre-war differences in expenditure between the groups appeared to be much greater ; but the war-time figures are likely to be more accurate for the lower income groups, almost the whole of whose

TABLE XVI.

Pre-War Expenditure on Clothing by Men and Women in Different Income Groups (£ per head per year)*

	Income of Head of Family‡				Urban Working Class†	Income of Head of Family‡				Urban Working Class†
	£700 & over	£700—500	£500—350	£350—250		£700 & over	£700—500	£500 & 350	£350—250	
	(In pounds)					Index Nos. M. of L. figure=100)				
Men	**21.5**	**17**	**13**	**16**	**8**	269	213	163	125	100
Women	**34.5**	**23.7**	**17.5**	**16.2**	**8.3**	418	288	212	197	100
Total of family	**69**	**52.7**	**39.7**	**32.5**	**21.3**	325	248	187	153	100
Of which:—										
Children	(13%)	(17%)	(17%)	(12%)	(14%)					
Repairs	(6.2%)	(6.2%)	(6.9%)	(7.2%)	(9.4%)					

* The totals for men and women have been adjusted to include expenditure upon boots and shoes which is not given separately for individual members of the family.

† Ministry of Labour Budgets1937/38. ‡ P. Massey, J.R.S.S. 1942

coupon outlay was devoted to those garments for which average money prices were recorded. It is probable that our assumption regarding money expenditure per coupon is less applicable to the higher income recipients. The error involved might be considerable since their coupon expenditure upon 'other items' rises to 30% for Group AB men and 35% for Group AB women. There is also higher expenditure upon unrationed clothing in this group.

The greatest reductions in the money volume of current purchases have, naturally, occurred in the highest groups, but against this must be set the higher level of their stocks, both in terms of quantity and of quality, and the smaller degree of occupational wear and tear their clothing suffers. Even in the two lowest groups, however, these totals suggest that there had been, by 1942, a cut in the real volume of clothing consumption as compared with 1937/38. Similar estimates of current consumption as between the social groups are not possible with the data available for the later years of rationing; but it appears that, although the differences between the current consumption of the groups have been diminishing both in coupon and in money terms, the differences in stocks up to April 1944 have increased.

P. ADY.